

Low Actuator Count DMs

Low-actuator count DM systems are economic and versatile solutions for advanced wavefront control.



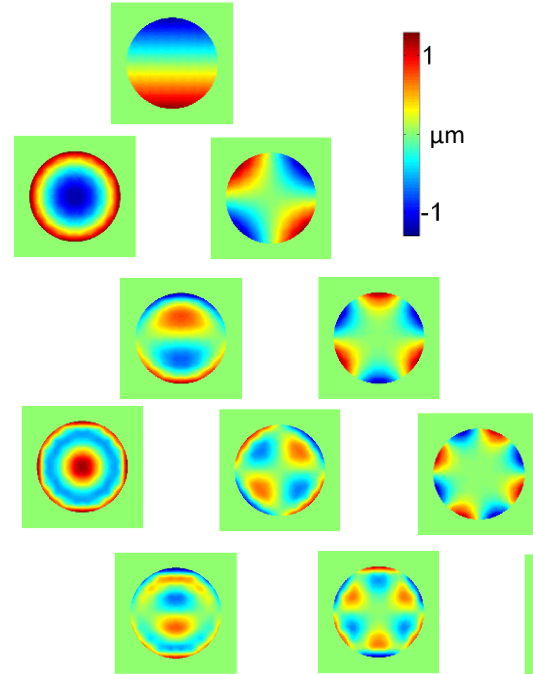
With up to 276 precisely controlled elements and low inter-actuator coupling, the *Multi-DM* (pictured above) and *276-DM* systems are ideal for a broad range of applications including microscopy, astronomy, retinal imaging, and laser beam shaping.

These systems are capable of up to 5.5 μ m stroke, 2 kHz frame rate, have sub-nm step size, and no hysteresis. High-speed electronic upgrades are available for the Low Actuator Count systems, in the form of the X-Driver.

DM Properties

Mirror Coating:	Aluminum, Gold or Protected Silver
Window:	AR coatings available
Hysteresis:	None
Step size:	Sub-nm (average)
Surface Type:	Continuous (DM)
Fill Factor:	>99%
Surface Figure:	<20nm RMS

Demonstrated High Order Aberration Correction



Measured Zernikes: >130 actuators with low interactuator coupling create complex Zernike modes

Driver Specifications

Dimensions:	9" x 7" x 2.5"
Interface:	USB 2.0
Input Voltage:	100-240V AC
Resolution:	14 bit
Frame Rate:	2 kHz*

Multi-3.5-Ag available @Thorlabs!



Specifications *	Total Actuator Count	Actuator Count Across Aperture	Stroke (μ m)	Aperture (mm)	Pitch (μ m)	Mechanical Response 10%-90% (μ s)			Approximate Interactuator Coupling
						Single Actuator	Defocus Rise	Defocus Fall	
Multi-C-1.5	137	13	1.5	3.6	300	<40	40	120	15%
Multi-C-1.5L	137	13	1.5	4.8	400	<75	150	170	13%
Multi-3.5	140	12	3.5	4.4	400	<75	150	170	13%
Multi-3.5L	140	12	3.5	4.95	450	<100	450	650	13%
Multi-5.5	140	12	5.5	4.95	450	<100	450	650	22%
276-1.5-DM†	276	18	1.5	5.1	300	<20	40	120	15%
276-3.5-DM†	276	18	3.5	6.8	400	<75	150	170	13%
276-5.5-DM†	276	18	5.5	7.65	450	<100	450	650	22%

*High speed driver options are available.

†Larger housing than standard Low Actuator Count DM housing